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Top Ten Reasons for Health Advisories

Every public water system is responsible for protecting public health by providing safe and reliable drinking water to its customers. If the water is known to be contaminated or if the water quality is unknown, you may have to issue a health advisory. A health advisory is issued when your water system, the Department of Health, or your local health department determines health risks are sufficient to advise customers to take action. A health advisory tells customers how to protect their health when their drinking water could be unsafe. You should not be fearful when issuing a health advisory because it is a way to protect your customers' health when their drinking water could be unsafe.

Health Advisory Project

The Office of Drinking Water (ODW) searched the files of water systems that issued health advisories between September 1, 2004 and August 31, 2005. We looked at records of field visits, memorandum of conversation, e-mails, and other documentation from the 76 water systems issuing health advisories. We looked for common causes and ways to prevent future incidents which would require putting out a health advisory.

Besides learning the common causes, we found that even though there are fewer Group A Transient Non-Community water systems within the state, they issued a greater portion of the health advisories. We also learned if water systems respond quickly in correcting the problem, the health advisory is usually shorter than a week.

Ten Main Reasons for Health Advisories

Here are the top 10 reasons we found that led to health advisories. You can use this information to help prevent situations which would call for a health advisory at your water system. Included are helpful resources you can find online at http://www4.doh.wa.gov/dw/publications/publications.cfm or you can call 1-800-521-0323 to get information or order publications.

Washington State Department of Health
Division of Environmental Health
Office of Drinking Water

HELPING TO ENSURE SAFE AND RELIABLE DRINKING WATER

1. Coliform

- Acute or non-acute coliform maximum contaminate level (MCL) water quality problems.
- One or more months of not collecting required coliform samples.
- Precautionary or off-normal events, such as not collecting repeat samples within 24 hours or abnormal operating conditions.

Resources
Coliform Information Advisory Packet (teal folder) (Pub. #331-258)
Coliform Public Health Advisory Packet (red folder) (Pub. #331-260)
Coliform Sampling Procedure (Pub. #331-225)
Emergency Disinfection for Small Water Systems (Pub. #331-242)
Follow-up to an unsatisfactory Coliform Sample (Pub. #331-187)
Troubleshooting Checklist for Coliform Contamination (Pub. #331-180)
Water Sampling: What We Test For and Why (Pub. #331-262)

2. Low Pressure/Low Water

- Source or reservoir cannot produce enough water to maintain adequate line pressure.
- Leaks and broken lines.
- Equipment failure.
- Lack of proper procedures, such as improper flushing or planned replacement of infrastructure.

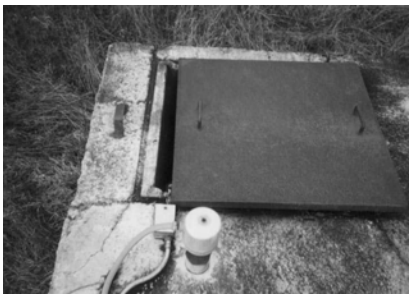
Resources
Responding to Pressure-Loss Events (Pub. #331-338)
Emergency Disinfection for Small Systems (Pub. #331-242)

3. Inadequate Venting

- Unscreened or inadequately screened vent or overflow pipe in storage reservoirs.
- Missing or inadequately screened vents on wells.

Resources
Sanitary Protection of Reservoirs - Vents (Pub. #331-250)
Simple Fixes for Wellhead Openings (Pub. #331-232)

4. Reservoir Access Hatches



- Improperly sealed access hatch that allows water or insects and small animals to enter the reservoir.

Resources
Sanitary Protection of Reservoirs – Hatches (Pub. #331-249)

5. Problems Facing Owners

- Frequent change of operator.
- Lack of certified operator, if required.
- Operator does not adequately maintain system.
- Lack of adequate plans and operation and maintenance programs.
- Untimely response to complaints.

Resources
Certified Water Works Operators (Pub. #331-217)
Contract Water Works Operators (Pub. #331-218)
Drinking Water Operating Permits (Pub. #331-011)
Owning and Managing a Drinking Water System (Pub. #331-084)
Planning Requirements for Public Water Systems (Pub. #331-202)
Small Water System Management Program Guide (Pub. #331-134)
Water System Planning Handbook (Pub. #331-068)

6. Chorinators

- Chlorinator is not functioning properly due to improper setting, mechanical failure, or empty solution tanks.
- Inadequate or missing chlorination reports.

Resources
Chlorination of Drinking Water (Pub. #331-253)
Chlorine Contact Time for Small Water Systems (Pub. #331-343)
Manufacturer Specifications

7. Well Sources

- Casing is located in an undrained pit or vault.
- Water is pooling or flooding around the casing because the top of casing is at ground level or the surrounding area is not properly sloped away from casing.
- Openings in the well cap allow insects and other contaminants to enter the well, such as inadequately sealed electrical wires.
- Well is sealed improperly (well seal is missing or damaged).

Resources
Sanitary Protection of Reservoirs - Vents (Pub. #331-250)
Wellhead Protection Requirements (Pub. #331-106)
Wellhead Protection Program Guidance Document (Pub. #331-018)
Inventory of Potential Contamination Sources in Washington's Wellhead Protection Areas (Pub. #331-076)
Nitrate in Drinking Water (Pub. #331-214)
Simple Fixes for Wellhead Openings (Pub. #331-232)
Water System Evaluation and Disinfection (Pub. #331-024)

8. Check Valves and Cross Connections

- The check valve is not functioning properly and the water is draining back into well.
- Suspected cross connection.

Resources
Cross-Connection Control for Small Water Systems (Pub. #331-234)
Cross Connections can Create Health Hazards (AWWA publication)

9. Unsatisfactory Sources

- The source is under the influence of surface water or could potentially be contaminated by surface water.
- There are potential contaminants near the source.
- Spring box needs repair to prevent surface water from entering.

Resources
Wellhead Protection Requirements (Pub. #331-106)
Wellhead Protection Program Guidance Document (Pub. #331-018)
Groundwater Sources Under the Direct Influence of Surface Water (GWI) (Pub. #331-216)

10. Sampling Problems

- The sample was collected improperly.
- Sample site was inadequate, such as not using sanitary frost proof yard hydrants, smooth-nosed sampling taps, or using dead end lines.

Resources
Sampling Brochures (Pub. #331-219 through Pub. #331-227)
Water Sampling: What We Test For and Why (Pub. #331-262)

What You Can Do

- If you find a problem, fix it as soon as possible.
- Follow your operations and maintenance plan.
- Mark your calendar for all your samples.
- Review your sanitary survey to help prioritize your corrections.
- Review your system with “another set of eyes.”
- It’s okay to ask for help.

For More Information

Northwest Regional Office – Kent
Main Office: 253-395-6750
Southwest Regional Office – Olympia
Main Office: 360-236-6060
Eastern Regional Office – Spokane
Main Office: 509-456-3115

PUBLIC HEALTH
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